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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,051	12/04/2003	Frederic Catteau	22130-00016-US1	4839
59554 7590 06/29/2007 Womble Carlyle Sandridge & Rice, PLLC Attn: Patent Docketing 32nd Floor P.O. Box 7037 Atlanta, GA 30357-0037			EXAMINER MORILLO, JANELLE COMBS	
			ART UNIT 1742	PAPER NUMBER
			MAIL DATE 06/29/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,051

Applicant(s)

CATTEAU ET AL.

Examiner

Janelle Combs-Morillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-12 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9, 12, and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Haszler (US 6,406,567).

Haszler teaches an aluminum alloy wrought plate with a thickness ≥ 6 inches (column 2 line 56), wherein said plate has been processed by solution heat treatment, quenching, and stress relief by compression 0.2-5% (Haszler at cl. 1). Haszler teaches said plate is stress relieved/ stress reduced through said process, and has significantly improved distortion after a machining step due to said stress reduction (column 5 lines 11, 15-16). Though Haszler does not mention the stored elastic energy achieved by said product by process, because Haszler teaches substantially identical product and process, then substantially the same properties, such as stored elastic energy, are expected to inherently occur. It is held that Haszler anticipates, or in the alternative, has created a prima facie case of obviousness of the presently claimed invention.

Once a reference teaching product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. "[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency'

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under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)), see MPEP 2112. In re Schreiber, 128 F.3d 1473, 1478, 44 USPQ2d 1429, 1432 (Fed.Cir.1997). Applicant has not clearly shown an unobvious difference between the instant invention and the prior art's product.

3. Claims 9, 12, and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 1158068A1 (EP'068).

EP'068 teaches an aluminum alloy wrought plate with a thickness ≥ 12 mm (abstract), such as 500 mm (see example), wherein said plate has been processed by solution heat treatment, quenching, and stress relief by compression 1.5% (EP'068 at [0027]). EP'068 teaches said plate can be formed into airframe structures such as spars [0024]. Though EP'068 does not mention the stored elastic energy achieved by said product by process, because EP'068 teaches substantially identical product and process, then substantially the same properties, such as stored elastic energy, are expected to inherently occur. It is held that EP'068 anticipates, or in the alternative, has created a prima facie case of obviousness of the presently claimed invention.

Once a reference teaching product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference (see further discussion in paragraphs above).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10, 11, 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP'068.

EP'068 is discussed in paragraphs above. Though EP'068 does not specify the L and W are greater than the claimed minimum, it would have been within the scope of EP'068, who teaches aluminum alloy thick plate products, to select a suitable L and W for said plate within the claimed $L*W > 1\text{m}^2$ or $L*W > 2\text{m}^2$, as well as deforming wherein the thickness < width, etc. substantially as presently claimed.

Changes in size, shape, or sequence of adding ingredients is prima facie obvious in the absence of new or unexpected results (see MPEP 2144.04). The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. The prima facie case can be rebutted by evidence showing that the prior

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art products do not necessarily possess the characteristics of the claimed product. In re Best, 562 F.2d at 1255, 195 USPQ at 433. See also Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985), see MPEP 2112.01.

Concerning claims 15-19, which mention a mold plate product or machined workpiece, EP'068 teaches that said alloy product is typically used in as thick plates for structural purposes [0024]. It would have been obvious to one of ordinary skill in the art to use the plate product taught by EP'068 for a mold plate or perform a step of machining on said plate taught by EP'068, because EP'068 teaches that said product is suitable for structural plate purposes (see [0024]).

6. Claims 10, 11, 15-18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haszler (US 6,406,567).

Haszler is discussed in paragraphs above. Concerning claims 10 and 11, though Haszler does not specify the L and W are greater than the claimed minimum, it would have been within the scope of Haszler, who teaches aluminum alloy thick plate products, to select a suitable L and W for said plate within the claimed $L*W > 1\text{m}^2$ or $L*W > 2\text{m}^2$, as well as deforming wherein the thickness < width, etc. substantially as presently claimed.

Changes in size, shape, or sequence of adding ingredients is prima facie obvious in the absence of new or unexpected results (see MPEP 2144.04).

Concerning claims 15-18 and 20, which mention a mold plate product or aircraft spar, Haszler teaches that said alloy product is typically used in moulding construction (column 3 line 8) or aircraft construction (column 6 line 4).

Response to Amendment/Arguments

7. In the response filed on April 18, 2007, applicant submitted various arguments traversing the rejections of record.

8. Applicant's argument that the present invention is allowable over the prior art of record because neither Haszler nor EP'068 teach a plate with stored elastic energy of $<0.5 \text{ kJ/m}^3$ has not been found clearly persuasive. Both of Haszler and EP'068 teach a substantially similar process of reducing the residual stress (i.e. elastic stored energy) of solution heated and quenched wrought aluminum alloy plate by stress relief compression in the thickness direction. Applicant argues that said compression in the thickness direction has inferior elastic stored energy due to a higher degree of overlapping compression steps which leads to variation in elastic stored energy vs. instant invention which preferably applies a single compression step (see also [0050] of specification) in the width or length direction. However, it is not clear applicant has compared the instant product by process to the closest prior art/ it is unclear "the values of W_{tbar} of 3.5 and 0.37 kJ/m^3 discussed in [0056] are values... which will inevitable occur with a process such as that taught by Haszler or EP'068" (arguments p 7). An affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. In re Burckel, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979), see also MPEP 716.02(e). "A comparison of the claimed invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." In re Merchant, 575 F.2d 865, 868, 197 USPQ 785, 787 (CCPA 1978) (emphasis in original). Where the comparison is not identical with the reference disclosure, deviations

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therefrom should be explained, *In re Finley*, 174 F.2d 130, 81 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required.

In re Armstrong, 280 F.2d 132, 126 USPQ 281 (CCPA 1960).

9. Evidence of unexpected properties may be in the form of a direct or indirect comparison of the claimed invention with the closest prior art which is commensurate in scope with the claims. See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) and MPEP §716.02(d) - §716.02(e).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCM

June 25, 2007

ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700